



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,150	02/04/2002	Michikazu Miyamoto	218973US3	9171
22850	7590	01/05/2006		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER LOPEZ, FRANK D	
			ART UNIT	PAPER NUMBER
			3745	
DATE MAILED: 01/05/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Tata

Office Action Summary	Application No. 10/061,150	Applicant(s) MIYAMOTO ET AL.	
	Examiner F. Daniel Lopez	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 112

Claims 1-13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 and claim 9, fourth to third lines from the end "to said head cover" should be --in said head cover --.

Claims not specifically mentioned are indefinite, since they depend from one of the above claims.

Double Patenting

Applicant is advised that should claim 8 be found allowable, claim 13 will be objected to under 37 CFR 1.75 as being identical thereof. When two claims in an application are duplicates, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Sandlin (see discussion below). Note that claims 3, 4 and 9 do not limit the changing mechanism to one of two alternate devices, and therefore reads on Sandlin, which discloses one of the two alternate devices.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

Art Unit: 3745

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 6 and 11 are rejected under 35 U.S.C. § 103 as being unpatentable over Sandlin in view of Neiner. Sandlin discloses a multistage stroke cylinder apparatus comprising: a main cylinder including a main piston (156) housed for sliding in a cylinder tube and driven by fluid pressure supplied to pressure chambers on opposite sides of said main piston and a main rod (189) connected to said main piston, a head cover and a rod cover (190) being mounted to opposite ends of said cylinder tube; an intermediate stop position setting mechanism for setting an intermediate stop position of said main piston; and a return position setting mechanism for setting a return position of said main piston, wherein said intermediate stop position setting mechanism includes a stop position setting piston (154) disposed for sliding between said main piston in said cylinder tube and said head cover to define said intermediate stop position of said main piston by coming in contact with said main piston, an auxiliary rod (163) connected to said stop position setting piston and having a tip end passing through said head cover and extending outside, a stopper (167) fitted with said tip end of said auxiliary rod to stop said stop position setting piston in a necessary position by coming in contact with a contact portion of said head cover, and a changing mechanism (including 166, 162, 153) for changing a stop position of said stop position setting piston by said stopper and said return position setting mechanism includes a return position setting piston (118) provided for sliding to said head cover and a position setting rod (148) connected to said return position setting piston and having a tip end projecting behind said stop position setting piston; but does not disclose that the main cylinder has a cushioning mechanism for reducing a speed of the main piston by restricting a discharge flow rate discharged from a discharge pressure chamber at an end of stroke of the main piston.

Neiner teaches, for a stroke cylinder comprising: a main cylinder including a main piston (19) housed for sliding in a cylinder tube (11) and driven by fluid pressure supplied to pressure chambers on opposite sides of said main piston and a main rod (20) connected to said main piston, a head cover (13) and a rod cover (12) being mounted to opposite ends of said cylinder tube; that the main cylinder has a cushioning mechanism, which restricts a discharge flow rate discharged from a discharge pressure chamber (31) at an end of stroke of the main piston, for the purpose of reducing a speed of the main piston.

Since Sundstrom and Neiner are both from the same field of endeavor, the purpose disclosed by Neiner would have been recognized in the pertinent art of Sundstrom. It would have been obvious at the time the invention was made to one having ordinary skill in the art to include a cushioning mechanism with the main cylinder of Sandlin, which restricting a discharge flow rate discharged from a discharge pressure chamber at an end of stroke of the main piston, as taught by Neiner for the purpose of reducing a speed of the main piston.

Claims 7 and 12 are rejected under 35 U.S.C. § 103 as being unpatentable over Sandlin in view of Tischer et al. Sandlin discloses all of the elements of claims 7 and 12, as discussed in the above rejection, but does not disclose that the main cylinder has a stroke detector connected to a stroke detector, for outputting an electric signal according to a position of the main rod.

Tischer et al teaches, for a multistage stroke cylinder apparatus comprising: a main cylinder including a main piston (18) housed for sliding in a cylinder tube and driven by fluid pressure supplied to pressure chambers on opposite sides of said main piston and a main rod (14) connected to said main piston, a head cover (17) and a rod cover (16) being mounted to opposite ends of said cylinder tube; an intermediate stop position setting mechanism for setting an intermediate stop position of said main piston and including a stop position setting piston (7) disposed for sliding between said main piston in said cylinder tube and said head cover to define said intermediate stop position of said main piston by coming in contact with said main piston; that the main cylinder

Art Unit: 3745

has a stroke detector (27, 28) connected to a stroke detector, for the purpose of outputting an electric signal according to a position of the main rod.

Since Sandlin and Tischer et al are both from the same field of endeavor, the purpose disclosed by Tischer et al would have been recognized in the pertinent art of Sundstrom. It would have been obvious at the time the invention was made to one having ordinary skill in the art to connect a stroke detector to the main cylinder of Sandlin, as taught by Tischer et al, for the purpose of outputting an electric signal according to a position of the main rod.

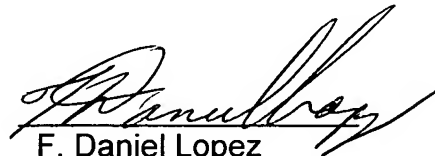
Conclusion

Claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pelton refers to a multistage stroke cylinder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.


F. Daniel Lopez
Primary Examiner
Art Unit 3745
January 3, 2006